

I CLAIM:

1. A lamp assembly comprising:

a lamp housing having a light-emitting opening turned in a direction of a surface to be illuminated;

at least one lamp in said housing for producing light which is emitted in a light cone toward said surface; and

a lens plate disposed across said opening and comprised of a multiplicity of microlenses for rendering the light cone as it passes through said lens plate substantially homogeneous and sharp-edged where said light cone meets said surface.

2. The assembly lamp defined in claim 1 mounted so that said surface is a floor.

3. The lamp assembly defined in claim 1 wherein said microlenses are directly adjacent one another.

4. The lamp assembly defined in claim 3 wherein said microlenses are formed as structuring of at least one surface of said lens plate.

5. The lamp assembly defined in claim 4 wherein said lens plate has a surface turned toward said lamp and another surface turned away from said lamp and toward an exterior of said housing, one of said surfaces being formed with contiguous

generally spherical recesses, the other of said surfaces being formed with contiguous generally spherical convexities, said convexities and said recesses forming said microlenses.

6. The lamp assembly defined in claim 5 wherein said convexities are on said surface turned toward the exterior of said housing and said recesses are on said surface turned toward said lamp.

7. The lamp assembly defined in claim 6 wherein a spacing ΔS between midpoints of adjacent recesses or adjacent convexities is less than 5mm.

8. The lamp assembly defined in claim 7 wherein ΔS is less than 3mm.

9. The lamp assembly defined in claim 7 wherein ΔS is less than 2mm.

10. The lamp assembly defined in claim 7 wherein ΔS is more than 1mm.

11. The lamp assembly defined in claim 7 wherein said recesses and said convexities are respectively flush with one another.

1 12. The lamp assembly defined in claim 7 wherein said
2 lens plate is composed of a plastic.

1 13. The lamp assembly defined in claim 12 wherein said
2 lens plate is composed of polymethylmethacrylate.

1 14. The lamp assembly defined in claim 12 wherein said
2 lens plate is an injection-molded article.

1 15. The lamp assembly defined in claim 7 wherein said
2 lens plate is formed in one piece.

1 16. The lamp assembly defined in claim 7 wherein said
2 opening is substantially fully closed by said lens plate.